

Pocket Watch. Federal regulators don't test the signal strength of cell phones carried close to the skin. They should

BY MICHAEL SCHERER

FIRST, AN ADMISSION: I DIDN'T read the safety manual after I bought my BlackBerry Bold 9000. I was too dazzled by the device—my first 36, after all—to be distracted by legalese. The phone promised easy Web browsing and came loaded with Texas hold 'em games. And so, like millions of other cell-phone users, I carried it in my pants pocket all day long, every day. After more than a year, I finally got around to reading the manual. That's when I found out that I had been in violation of not only BlackBerry's safety warnings but also my desire for self-preservation.

"When you carry the BlackBerry device on your body, use only accessories equipped with an integrated belt clip," the manual stated on page 17. If not using a belt clip, the warning continued, "keep the BlackBerry device at least 0.98 in. (25 mm) from your body" when sending or receiving data, in order to "maintain compliance" with radio-frequency-radiation standards set by the Federal Communications Commission (FCC).

Similar directives against carrying phones in body-hugging pockets are common throughout the industry. Apple's iPhone 4 manual tells users to keep the phone "at least 15 mm (⁵/₈ in.) away from the body." Motorola cautions that an active Wi8o should be a full inch (25 mm) from the user's skin—unless it's paired with a company-approved "clip, holder, holster, case or body harness."

Skeptics of cell-phone



TALKING POINTS

For safety reasons, the FCC sets a limit on signal strength

THE DISCONNECT
Phones are tested in holsters or at least 1/8 in. (15 mm) from the body

safety have seized on these warnings as evidence that the ubiquitous devices may be exposing Americans to far more radiation than regulators measure. And sure enough, it turns out these provisions stem from an odd quirk in federal testing procedures. For some reason, the

people who designed the regulations chose not to simulate a naked phone operating at full power a mere pocket lining away from the body—an odd oversight, given the known habits of millions of users.

According to the guidelines set in 2001 for testing phones in a "body worn" configuration, a device should be tested in a belt clip or holster if that gear is supplied with the phone. If it isn't—as is the case with the iPhone, among others—the FCC told testers to assume a distance of 0.59 in. to 0.98 in. (15 mm to 25 mm) from the body.

Why does this matter? Because radio-frequency waves can heat cells and possibly do

damage to the human body. Generally, the shorter the distance from a radio signal, the more powerful the waves. But given the testing guidelines, it is impossible to know if any phone currently sold in the U.S.—and carried in a pocket flush against the skin—would exceed the maximum specific absorption rate of 1.6 watts per kilogram of body tissue.

"Clearly, a lot of people weren't aware of this, and it probably does need to be addressed," says a current FCC official familiar with these issues who asked not to be identified by name.

So should we be worried about putting our phones in our pockets? The FCC notes on its website that studies linking cell phone exposure and cancer "have been inconclusive." The Food and Drug Administration has stated that it cannot rule out the possibility of a health risk from phones but that if such a risk exists, "it is probably very small." One recent multicountry study found that people who used their phones on average 30 or more minutes a day for at least 10 years had a substantially higher risk of developing brain cancer, but the study also found that those who rarely used cell phones had a lower risk than those who used only corded phones. Other studies have linked radio-frequency energy to declines in healthy human sperm.

I haven't rushed out to buy a holster yet. Like many consumers, I am a creature of habit, a fact that now occurs to me every time I pick up my phone and put it in my pocket, warily hoping for the best. •